

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 7, 2005, 07:04:17 ; Search time 16.1259 Seconds
(without alignments)
1193.323 million cell updates/sec

Title: US-09-939-537-31_COPY_1_200
Perfect score: 1029
Sequence: 1 NMRGVPFRHLVLVQLALP.....TWTCTVLQNGKVEPKDIIV 200

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database :
1: p1r1:*
2: p1r2:*
3: p1r3:*
4: p1r4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1023	99.4	458	1 RWHUT4	T-cell surface gly
2	875	85.0	432	1 RMCZT4	T-cell surface gly
3	790	76.8	432	1 RMMQ74	T-cell surface gly
4	587.5	57.1	459	2 A46254	CD4 precursor - ra
5	562	54.6	432	2 S30193	T-cell surface gly
6	488.5	47.5	457	2 A27449	T-cell surface gly
7	475	46.2	457	1 RWM574	T-cell surface gly
8	357	34.7	71	2 160082	CD4 receptor - hum
9	305.5	29.7	99	2 S21461	T-cell surface gly
10	280.5	27.3	99	2 S21462	T-cell surface gly
11	140.5	13.7	538	2 JC2457	vascular cell adhe
12	127	12.3	1259	2 S36126	neural cell adhe
13	124	12.1	739	2 JS0675	vascular cell adhe
14	124	12.1	1260	1 S05479	neural cell adhe
15	118.5	11.5	338	2 JC4776	limbic-system-asso
16	117	11.4	739	2 A41288	vascular cell adhe
17	117	11.4	1011	2 T13669	neurofascin - fir
18	115	11.2	6831	2 A88852	protein unc-22 [im
19	115	11.2	6831	2 A88852	protein unc-22 [im
20	115	11.2	7160	2 T27935	hypothetical prote
21	111.5	10.8	1197	2 T30581	neural cell adhesi
22	110.5	10.7	521	2 JC5519	50K glycoprotein p
23	110.5	10.7	521	2 JC5519	50K glycoprotein p
24	110	10.7	739	2 JN0581	vascular cell adhe
25	109.5	10.6	304	2 S04663	T-cell receptor ga
26	109.5	10.6	398	2 A19443	gene 2B4 protein -
27	109	10.6	1091	2 A58532	glial cell membran
28	109	10.6	1091	2 A58532	glial cell membran
29	109	10.6	1367	2 A41228	protein-tyrosine k

30	108.5	10.5	333	2 A31923	amalgam protein pr
31	108	10.5	257	2 S06682	IGF receptor al
32	107.5	10.4	122	2 S40370	IG kappa chain - h
33	106.5	10.3	111	2 B37266	IG kappa chain V r
34	106.5	10.3	111	2 B37266	IG kappa chain V r
35	106.5	10.3	584	2 138740	8-glicerin precursor
36	106.5	10.3	773	1 QRRB6	secretory componen
37	106	10.3	345	2 S03199	opioid-binding pro
38	105	10.2	345	2 JC4025	opioid-binding pro
39	105	10.2	647	2 B41288	vascular cell adhe
40	104	10.1	458	2 UC1509	billary glycoprote
41	103.5	10.1	103	2 S18731	IG kappa chain V-J
42	103.5	10.1	108	1 RWM506	IG kappa chain V r
43	103.5	10.1	117	2 S21668	IG kappa chain V r
44	103.5	10.1	139	1 K1HMK	IG kappa chain pre
45	103	10.0	1028	2 A53449	plasmacytoma-asso

ALIGNMENTS

RESULT 1

RWHUT4
T-cell surface glycoprotein CD4 precursor [validated] - human
N:Alternate names: T-cell surface antigen T4/Lew 3
C:Species: Homo sapiens (man)
C>Date: 28-May-1986 #sequence revision 31-Dec-1988 #text change 09-Jul-2004
C:Accession: A90872; A32722; A4194; A53287; I54176; I54257; A02109; A20039
R:Maddon, P.J.; Littman, D.R.; Godfrey, M.; Maddon, D.E.; Chess, L.; Axel, R.
Cell 42, 93-104, 1985
A:Title: The isolation and nucleotide sequence of a cDNA encoding the T cell surface prot
A:Reference number: A90872; MUID:85254948; PMID:2990730
A:Accession: A90872
A:Molecule type: mRNA
A:Residues: 1-25, 'N', 27-458 <MAD>
A:Cross-references: UNIPROT:P01730
A:Experimental source: clone pT4B
R:Littman, D.R.; Maddon, P.J.; Axel, R.
Cell 55, 541, 1988
A:Title: Corrected CD4 sequence.
A:Reference number: A90907; MUID:89028665; PMID:3263213
A:Contents: annotation; revision to residue 26
R:Camerini, D.; Seed, B.
Cell 60, 747-754, 1990
A:Title: A CD4 domain important for HIV-mediated syncytium formation lies outside the vi
A:Reference number: A32722; MUID:90182664; PMID:2107024
A:Accession: A32722
A:Status: nucleic acid sequence not shown; not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 26-426, 428-458 <CAM>
R:Carri, S.A.; Henling, M.E.; Polena-Wasserman, G.; Sweet, R.W.; Annunzio, K.; Barr, J.R.;
J. Biol. Chem. 264, 21286-21295, 1989
A:Title: Protein and carbohydrate structural analysis of a recombinant soluble CD4 recep
A:Reference number: A34194; MUID:90078232; PMID:2592374
A:Contents: disulfide bonds; carbohydrate-binding sites
A:Accession: A34194
A:Molecule type: protein
A:Residues: 26-394 <CAR>
R:Lederman, S.; Demartino, J.A.; Daugherty, B.L.; Foeldvari, I.; Yellin, M.J.; Cleary, A
Mol. Immunol. 28, 1171-1181, 1991
A:Title: A single amino acid substitution in a common African allele of the CD4 molecule
A:Reference number: A53287; MUID:92072595; PMID:1961196
A:Accession: A53287
A:Status: not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 250-264, 'W', 266-280 <LED>
R:Edwards, M.C.; Gibbs, R.A.
Genomics 14, 590-597, 1992
A:Title: A human dimorphism resulting from loss of an Alu.
A:Reference number: I54176; MUID:93052387; PMID:1330888
A:Accession: I54176
A:Status: translated from GB/EMBL/DBJ

A:Molecule type: DNA
A:Residues: 1-72 <RES>
A:Cross-references: GB:U47924; GB:M86525; GB:U72506; NID:G1633547; PIDN:AAB51309.1; PID:
R:Hodge, T.W.; Saaso, D.R.; McDougal, J.S.
Hum. Immunol. 30, 99-104, 1991
A:Title: Humans with OKT4-epitope deficiency have a single nucleotide base change in the
A:Reference number: 154297; MUID:91216786; PMID:11708753
A:Accession: 154297
A:Status: translated from GB/EMBL/DBD
A:Molecule type: DNA
A:Residues: 1-264, W, 266-458 <RE2>
A:Cross-references: GB:M35160; NID:G179143; PIDN:AAA16069.1; PID:G179144
C:Comment: Macrophage tropic strains of HIV-1 bind to a complex of chemokine (C-C) recep
C:Genetics:
A:Gene: GDB:CD4
A:Cross-references: GDB:119767; OMIM:186940
A:Map position: 12pter-12p12
A:Intons: 16/3
C:Superfamily: T-cell surface glycoprotein CD4; immunoglobulin homology
C:Keywords: AIDS; duplication; glycoprotein; T-cell; transmembrane protein
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-458/Product: T-cell surface glycoprotein CD4 #status experimental <MAT>
F:34-111/Domain: immunoglobulin homology <IM1>
F:136-186/Domain: immunoglobulin homology #status atypical <IM2>
F:216-299/Domain: immunoglobulin homology <IM3>
F:321-372/Domain: immunoglobulin homology <IM4>
F:397-420/Domain: transmembrane #status predicted <TM>
F:421-458/Domain: intracellular #status predicted <INT>
F:41-109,155-184,328-370/Disulfide bonds: #status experimental
F:296,325/Binding site: carbohydrate (Asn) #status experimental

Query Match 99.4%; Score 1023; DB 1; Length 458;
Best Local Similarity 99.5%; Pred. No. 2,1e-75;
Matches 199; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNRGVPFRHLLVQLALPAATQGNKVIVGKKGDTVELCTASQKKSIOFHWNKSNQIK 60
DB 1 MNRGVPFRHLLVQLALPAATQGNKVIVGKKGDTVELCTASQKKSIOFHWNKSNQIK 60
QY 61 ILNQGSLFLTKGSKINDRADSRSLMDQGNPFLIKNLKIEISDPTICVEDEQKEVQL 120
DB 61 ILNQGSLFLTKGSKINDRADSRSLMDQGNPFLIKNLKIEISDPTICVEDEQKEVQL 120
QY 121 LVFGLTANSPTDHLQGSQSLTLTLESPGSSPVQCSPRGKNIQGGKTLVSQLELDQDSG 180
DB 121 LVFGLTANSPTDHLQGSQSLTLTLESPGSSPVQCSPRGKNIQGGKTLVSQLELDQDSG 180
QY 181 TWTCCTVLONOKKVEFKIDIV 200
DB 181 TWTCCTVLONOKKVEFKIDIV 200

RESULT 2
RMC274
T-cell surface glycoprotein CD4 - chimpanzee
N:Alternate names: T-cell surface antigen T4/Leu 3
C:Species: Pan troglodytes (chimpanzee)
C>Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
C:Accession: B32722; A46534
R:Camertini, D.; Seed, B.
Cell 60, 747-754, 1990
A:Title: A CD4 domain important for HIV-mediated syncytium formation lies outside the vi
A:Reference number: A33722; MUID:90182664; PMID:2107024
A:Accession: B32722
A:Molecule type: mRNA
A:Residues: 1-432 <CAM>
A:Cross-references: UNIPROT:P16004; GB:M31135
R:Fromsgaard, A.; Hirsch, V.M.; Johnson, P.R.
Eur. J. Immunol. 22, 2973-2981, 1992
A:Title: Cloning and sequences of primate CD4 molecules: diversity of the cellular recep
A:Reference number: A46534; MUID:93049640; PMID:1425921
A:Accession: A46534
A:Status: not compared with conceptual translation

A:Molecule type: mRNA
A:Residues: 3-399 <ROM>
A:Note: Sequence extracted from NCBI backbone (NCBIP:118332)
C:Comment: This protein is expressed on most thymocytes, on a subset of mature T-cells t
C:Superfamily: T-cell surface glycoprotein CD4; immunoglobulin homology
C:Keywords: duplication; glycoprotein; T-cell; transmembrane protein
F:1-432/Product: T-cell surface glycoprotein CD4 #status predicted <MAT>
F:1-371/Domain: extracellular #status predicted <EXT>
F:9-86/Domain: immunoglobulin homology <IM1>
F:111-161/Domain: immunoglobulin homology #status atypical <IM2>
F:191-274/Domain: immunoglobulin homology <IM3>
F:296-347/Domain: immunoglobulin homology <IM4>
F:372-395/Domain: transmembrane #status predicted <TM>
F:396-432/Domain: intracellular #status predicted <INT>
F:16-84,130-159,303-345/Disulfide bonds: #status predicted
F:271,300/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 85.0%; Score 875; DB 1; Length 432;
Best Local Similarity 97.7%; Pred. No. 1,9e-63;
Matches 170; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 27 KVLGKGGDTVELCTASQKKSIOFHWNKSNQIKILNQGSLFLTKGSKINDRADSRSL 86
DB 2 KVLGKGGDTVELCTASQKKSIOFHWNKSNQIKILNQGSLFLTKGSKINDRADSRSL 86
QY 87 WMOGNPFLIKNLKIEDSPYICVEDEQKEVQLVFGITANSPTDHLQGSQSLTLTLESP 146
DB 87 WMOGNPFLIKNLKIEDSPYICVEDEQKEVQLVFGITANSPTDHLQGSQSLTLTLESP 121
QY 147 PSSSPVQCSPRGKNIQGGKTLVSQLELDQSGTWTCTVLONOKKVEFKIDIV 200
DB 122 PSSSPVQCSPRGKNIQGGKTLVSQLELDQSGTWTCTVLONOKKVEFKIDIV 175

RESULT 3
RMC274
T-cell surface glycoprotein CD4 - rhesus macaque
N:Alternate names: T-cell surface antigen T4/Leu 3
C:Species: Macaca mulatta (rhesus macaque)
C>Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Jul-1999
R:Camertini, D.; Seed, B.
Cell 60, 747-754, 1990
A:Title: A CD4 domain important for HIV-mediated syncytium formation lies outside the vi
A:Reference number: A33722; MUID:90182664; PMID:2107024
A:Accession: C32722
A:Molecule type: mRNA
A:Residues: 1-432 <CAM>
A:Cross-references: GB:M31134
C:Comment: This protein is expressed on most thymocytes, on a subset of mature T-cells t
C:Superfamily: T-cell surface glycoprotein CD4; immunoglobulin homology
C:Keywords: duplication; glycoprotein; T-cell; transmembrane protein
F:1-432/Product: T-cell surface glycoprotein CD4 #status predicted <MAT>
F:1-371/Domain: extracellular #status predicted <EXT>
F:9-86/Domain: immunoglobulin homology <IM1>
F:111-161/Domain: immunoglobulin homology #status atypical <IM2>
F:180-293/Domain: immunoglobulin homology <IM3>
F:296-347/Domain: immunoglobulin homology <IM4>
F:372-395/Domain: transmembrane #status predicted <TM>
F:396-432/Domain: intracellular #status predicted <INT>
F:16-84,130-159,303-345/Disulfide bonds: #status predicted
F:271,300/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 76.8%; Score 790; DB 1; Length 432;
Best Local Similarity 87.4%; Pred. No. 1,5e-56;
Matches 152; Conservative 12; Mismatches 10; Indels 0; Gaps 0;

QY 27 KVLGKGGDTVELCTASQKKSIOFHWNKSNQIKILNQGSLFLTKGSKINDRADSRSL 86
DB 2 KVLGKGGDTVELCTASQKKSIOFHWNKSNQIKILNQGSLFLTKGSKINDRADSRSL 61
QY 87 WMOGNPFLIKNLKIEDSPYICVEDEQKEVQLVFGITANSPTDHLQGSQSLTLTLESP 146
DB 87 WMOGNPFLIKNLKIEDSPYICVEDEQKEVQLVFGITANSPTDHLQGSQSLTLTLESP 146

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Db      62 WDQCFSMIIRKLIKIEDSDTYICEVENKKEVELLVEGLTANSDTHLLBGSLTLTLESP 121
Qy      147 PGSSPSVQCRSPRGKNIQGGKTLVSQLELQDSGTMTCTVLQNKVFEKIDIV 200
      122 PGSSPSVQCRSPRGKNIQGGKTLVSQLELQDSGTMTCTVLQNKVFEKIDIV 175

RESULT 4
A46254
CD4 precursor - rabbit
C/Species: Oryctolagus cuniculus (domestic rabbit)
C/Date: 21-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C/Accession: A46254
R/Hague, B.F.; Sawadikows, S.; Brown, T.J.; Lee, K.; Recker, D.P.; Kindt, T.J.
Proc. Natl. Acad. Sci. U.S.A. 89, 7969-7967, 1992
A>Title: CD4 and its role in infection of rabbit cell lines by human immunodeficiency vi
A/Reference number: A46254; MUID:92390370; PMID:1518821
A/Accession: A46254
A/Status: preliminary
A/Molecule type: mRNA
A/Residues: 1-459 <HAG>
A/Cross-references: UNIPROT:P46630; GB:M2840; NID:g164871; PIDN:AAA31198.1; PID:g164872
A/Note: Sequence extracted from NCBI backbone (NCBI:112732, NCBI:P112733)
C/Superfamily: T-cell surface glycoprotein CD4; immunoglobulin homology
F/322-372/Domain: immunoglobulin homology <IMM>

Query Match      57.1%; Score 587.5; DB 2; Length 459;
Best Local Similarity 58.5%; Pred. No. 4.2e-40;
Matches 120; Conservative 34; Mismatches 46; Indels 5; Gaps 2;

Qy      1 MNRGVPFRHL-LIVQLALPAAQGNKVLGKGDVVELTCTASQKSIQFHMKNQIK 60
      1 MNRRIFFQCLLVPLALPAAQGNKVLGKGDVVELTCTASQKSIQFHMKNQIK 60
Db      1 MNRRIFFQCLLVPLALPAAQGNKVLGKGDVVELTCTASQKSIQFHMKNQIK 60

Qy      61 ILGNQG---SFLTKGPSKLNDRADSRSLMDQGNFPLIIRKLIKIEDSDTYICEVEDQKE 116
      61 ILGNQSSSSSSFFMLKGNPSLNRSVESKKNMWDQSPFLVIKDIRMDSGTIVCEVGDKIM 120
Db      117 EVQLVFGFLTANSDTHLLQGSLLTLTLESPGSSPSVQCRSPRGKNIQGGKTLVSQLEL 176
      121 EVQLVFLRLLTANSDTHLLQGSLLTLTLESPGSSPSVQCRSPRGKNIQGGKTLVSQLEL 180

Qy      177 QDSGTMTCTVLQNKVFEKIDIV 200
      181 QDSGTMTCTVLQNKVFEKIDIV 205
Db      181 QDSGTMTCTVLQNKVFEKIDIV 205

RESULT 5
S30193
T-cell surface glycoprotein CD4 - dog
C/Species: Canis lupus familiaris (dog)
C/Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 21-Jul-2000
C/Accession: S30193
R/Milde, K.F.; Conner, G.E.; Mintz, D.H.; Alejandro, R.
Biochim. Biophys. Acta 1172, 315-318, 1993
A>Title: Primary structure of the canine CD4 antigen.
A/Reference number: S30193; MUID:93192324; PMID:7516632
A/Accession: S30193
A/Status: preliminary
A/Molecule type: mRNA
A/Residues: 1-432 <ML>
A/Cross-references: EMBL:X68565; NID:g288652; PIDN:CAB37664.1; PID:g4467377
C/Superfamily: T-cell surface glycoprotein CD4; immunoglobulin homology
C/Keywords: glycoprotein
F/302-311/Domain: immunoglobulin homology <IMM>

Query Match      54.6%; Score 562; DB 2; Length 432;
Best Local Similarity 55.1%; Pred. No. 4.6e-38;
Matches 109; Conservative 37; Mismatches 42; Indels 10; Gaps 2;

Qy      12 LVQLALLPAAQGNKVLGKGDVVELTCTASQKSIQFHMKNQIKILGNQSFPLTK 71
      1 LMLQLVMLPAAQGNKVLGKGDVVELTCTASQKSIQFHMKNQIKILGNQSFPLTK 60
Db      1 LMLQLVMLPAAQGNKVLGKGDVVELTCTASQKSIQFHMKNQIKILGNQSFPLTK 60

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Qy      72 GPKLNDRADSRSLMDQGNFPLIIRKLIKIEDSDTYICEVEDQKEVQLVFGFLTA---- 127
      61 GSRRLKRRVSKKNLMDQGSFPLVIKDLRYADSGIYFCDI-DKQGVELLVPLTAKRDS 119
Db      128 -----NSDTHLLQGSLLTLTLESPGSSPSVQCRSPRGKNIQGGKTLVSQLELQDSGTW 182
      120 GSSSGSSNIRLLQGGQTLTLLENPSGSSPSVQCRSPRGKNIQGGKTLVSQLELQDSGTW 179
Db      183 TCTVLQNKVFEKIDIV 200
      180 TCTISQSQKTEFNNIVL 197

RESULT 6
A27449
T-cell surface glycoprotein CD4 precursor - rat
N/Alternate names: W3/25 antigen
C/Species: Rattus norvegicus (Norway rat)
C/Date: 21-May-1988 #sequence_revision 21-May-1988 #text_change 09-Jul-2004
C/Accession: A27449; A35433
R/Clark, S.J.; Ueffelies, W.A.; Barclay, A.N.; Gagnon, J.; Williams, A.F.
Proc. Natl. Acad. Sci. U.S.A. 84, 1649-1653, 1987
A>Title: Peptide and nucleotide sequences of rat CD4 (W3/25) antigen: evidence for deriv
A/Reference number: A27449; MUID:87175535; PMID:3104900
A/Accession: A27449
A/Molecule type: mRNA
A/Residues: 1-457 <CLA>
A/Cross-references: UNIPROT:P05540; GB:M15768; NID:g203387; PIDN:AAA40901.1; PID:g203388
R/Davis, S.J.; Ward, H.A.; Puklavac, M.J.; Willis, A.C.; Williams, A.F.; Barclay, A.N.
J. Biol. Chem. 265, 10410-10418, 1990
A>Title: High level expression in Chinese hamster ovary cells of soluble forms of CD4 T
A/Reference number: A35433; MUID:90285164; PMID:2113054
A/Content: annotation
C/Superfamily: T-cell surface glycoprotein CD4; immunoglobulin homology
C/Keywords: glycoprotein; membrane protein; surface antigen
F/219-300/Domain: immunoglobulin homology <IMM>

Query Match      47.5%; Score 488.5; DB 2; Length 457;
Best Local Similarity 49.0%; Pred. No. 4.5e-32;
Matches 99; Conservative 34; Mismatches 66; Indels 3; Gaps 2;

Qy      1 MNRGVPFRHL-LIVQLALPAAQGNKVLGKGDVVELTCTASQKSIQFHMKNQIK 58
      1 MCRGFSFRHLPLILLQSLTLVLTQKTYVGLKGGSAELPEBSISRRASAFKMSDDQ 60
Db      59 IKILGNQSFPLTKGPSKLNDRADSRSLMDQGNFPLIIRKLIKIEDSDTYICEVEDQKEV 118
      61 KTLIGYKKNLILKGSLEYSRPSRKAMERGSFPLIIRKLIKIEDSDTYICEVEDQKEV 120
Db      119 QLLVFGFLTANSDTHLLQGSLLTLTLESPGSSPSVQCRSPRGKNIQGGKTLVSQLELQ 177
      121 ELWVFRTFNPGRLLQGSLLTLTLESPGSSPSVQCRSPRGKNIQGGKTLVSQLELQ 180

Qy      178 DSGTMTCTVLQNKVFEKIDIV 199
      181 DSGIMCTVTLLQNKGSFPMKL 202
Db      181 DSGIMCTVTLLQNKGSFPMKL 202

RESULT 7
RNMST4
T-cell surface glycoprotein CD4 precursor - mouse
N/Alternate names: T-cell differentiation antigen L3T4; T-cell surface antigen T4/Leu 3
C/Species: Mus musculus (house mouse)
C/Date: 30-Jun-1987 #sequence_revision 30-Jun-1987 #text_change 09-Jul-2004
C/Accession: A02110; A26038; A39893; A39955; I54564; I69018; A47642
R/Tourville, B.; Gorman, S.D.; Field, E.H.; Hunkapiller, T.; Parnes, J.R.
Science 234, 610-614, 1986
A>Title: Isolation and sequence of L3T4 complementary DNA clones: expression in T cells
A/Reference number: A02110; MUID:87018845; PMID:3094146
A/Accession: A02110
A/Molecule type: mRNA
A/Residues: 1-457 <TOU>

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A/Cross-references: UNIPROT:P06332; GB:M13816; NID:g192070; PIDN:AAA37267.1; PID:g309112
 R.Littman, D.R.; Gettner, S.N.
 Nature 325, 453-455, 1987
 A>Title: Unusual intron in the immunoglobulin domain of the newly isolated murine CD4 (L
 A/Reference number: A26038; MUID:87115821; PMID:3027575
 A/Accession: A26038
 A/Molecule type: mRNA
 A/Residues: 1-457 <LIT>
 A/Cross-references: GB:X04836; NID:g50353; PIDN:CAA28539.1; PID:g50354
 R.Gorman, S.D.; Tourville, B.; Parnes, J.R.
 Proc. Natl. Acad. Sci. U.S.A. 84, 7644-7648, 1987
 A>Title: Structure of the mouse gene encoding CD4 and an unusual transcript in brain.
 A/Reference number: A39893; MUID:88041159; PMID:2823269
 A/Accession: A39893
 A/Molecule type: DNA
 A/Residues: 1-25, 'E', 27-457 <GOR>
 A/Cross-references: GB:M17080; GB:J03003; NID:g192515; PIDN:AAA37402.1; PID:g387124
 R.Maddon, P.U.; Molinieux, S.M.; Maddon, D.E.; Zimmerman, K.A.; Godfrey, M.; Alt, F.W.;
 Proc. Natl. Acad. Sci. U.S.A. 84, 9155-9159, 1987
 A>Title: Structure and expression of the human and mouse T4 genes.
 A/Reference number: A39955; MUID:88097446; PMID:3501122
 A/Accession: A39955
 A/Status: nucleic acid sequence not shown; not compared with conceptual translation
 A/Molecule type: mRNA
 A/Residues: 25-457 <MAD>
 A/Note: the cited GenBank accession number, J03564, is not in release 101.0
 R.Parnes, J.R.; Hunkapiller, T.
 Immunol. Rev. 100, 109-127, 1987
 A>Title: L3T4 and the immunoglobulin gene superfamily: New relationships between the imm
 A/Reference number: I54564; MUID:88152875; PMID:3326818
 A/Accession: I54564
 A/Status: translated from GB/EMBL/DBJ
 A/Molecule type: mRNA
 A/Residues: 1-457 <RES>
 A/Cross-references: GB:M36850; NID:g198670; PIDN:AAA39401.1; PID:g198671
 A/Accession: I69018
 A/Status: translated from GB/EMBL/DBJ
 A/Molecule type: DNA
 A/Residues: 208-318 <RE2>
 A/Cross-references: GB:M36851; NID:g198672; PIDN:AAA39402.1; PID:g554183
 R.Classon, B.J.; Tsagaratos, J.; Kitzbaum, L.; Maddox, J.; Mackay, C.R.; Brandon, M.; W
 Immunogenetics 23, 129-132, 1986
 A>Title: The L3T4 antigen in mouse and the sheep equivalent are immunoglobulin-like.
 A/Reference number: A47642; MUID:8616694; PMID:3082751
 A/Accession: A47642
 A/Molecule type: protein
 A/Residues: 27-43 <CLA>
 A/Comment: This protein is expressed on most thymocytes, on a subset of mature T-cells b
 C/Genetics:
 A:Introns: 18/1, 74/1, 128/1, 207/1, 319/1, 386/1, 425/3, 448/2
 C:Superfamily: T-cell surface glycoprotein CD4; immunoglobulin homology
 C/Keywords: alternative initiators; duplication; glycoprotein; T-cell; transmembrane pro
 F:1-26/Domain: signal sequence #status predicted <SIG>
 F:27-457/Product: T-cell surface glycoprotein CD4 #status experimental <MAT>
 F:35-114/Domain: immunoglobulin homology <IM1>
 F:139-190/Domain: immunoglobulin homology #status atypical <IM2>
 F:220-301/Domain: immunoglobulin homology <IM3>
 F:241-457/Product: CD4, brain-specific short form #status predicted <BRA>
 F:321-372/Domain: immunoglobulin homology <IM4>
 F:395-419/Domain: transmembrane #status predicted <IMW>
 F:420-457/Domain: intracellular #status predicted <INT>
 F:42-112, 159-188, 328-370/Disulfide bonds: #status predicted
 F:187, 298, 323, 352/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 46.2%; Score 475; DB 1; Length 457;
 Best Local Similarity 52.8%; Pred. No. 5, 5e-31;
 Matches 104; Conservative 32; Mismatches 55; Indels 6; Gaps 5;

QY 1 NNRGVPRH-LIIVLQALIPAAATGKNNKVLGKGGTVELTCTASQKSIQPFHKNKSNQI 59
 DB 1 MCRALSRRLILLLIQLSOLAVTQGGKTIVLGRKGSABELPCSSQKLTIVFWKSSDQR 60
 QY 60 KILNGG-SFLVTG--PSKLNDRADSRRLMDGNPLIILKLIKIDSDTYICEVADQK 116

DB 61 KILGQKGVILRGSSPSQF-DRFDSKKAEMKGSFPLIILNKIKEDSGTYICELENRKE 119
 QY 117 EVQLLVGLTNSDTHLQGGSLITLLES-PPGSSPSVQCRPRGNKIQGGTIVSVQLE 175
 DB 120 EVELWVFVKTFSPGTSILQGGSLITLDSNRSKVSNDLTFCKKKGVGSKVLSMSNLR 179
 QY 176 LDSSGTFCTVQLQNOCK 192
 DB 180 VQDSDFMNCTIVLDQCK 196

RESULT 8
 160082
 CD4 receptor - human (fragment)
 C/Species: Homo sapiens (man)
 C/Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 09-Jul-2004
 C/Accession: I60082
 R.Zverev, V.V.; Sidorov, A.V.; Nedospasov, S.A.; Malinshova, V.V.; Udalova, I.A.; Andzhai
 Vopr. Virusol. 40, 100-102, 1995
 A>Title: [Nucleotide sequence of two exons of the human T-lymphocyte CD4 receptor gene].
 A/Reference number: I60082; MUID:95407135; PMID:7676667
 A/Accession: I60082
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: mRNA
 A/Residues: 1-71 <RES>
 A/Cross-references: UNIPROT:Q13969; GB:S79267; NID:g1086922; PIDN:AB35273.1; PID:g10869;
 C/Genetics:
 A:Introns: 17/1
 C:Superfamily: T-cell surface glycoprotein CD4; immunoglobulin homology

Query Match 34.7%; Score 357; DB 2; Length 71;
 Best Local Similarity 98.6%; Pred. No. 2, 3e-22;
 Matches 70; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 NNRGVPRH-LIIVLQALIPAAATGKNNKVLGKGGTVELTCTASQKSIQPFHKNKSNQI 60
 DB 1 NNRGVPRH-LIIVLQALIPAAATGKNNKVLGKGGTVELTCTASQKSIQPFHKNKSNQI 60
 QY 61 IILNGGSPFTK 71
 DB 61 IILNGGSPFTK 71

RESULT 9
 S21461
 T-cell surface glycoprotein CD4 (allele 1) - pig (fragment)
 C/Species: Sus scrofa domestica (domestic pig)
 C/Date: 20-Feb-1995 #sequence_revision 19-Apr-1996 #text_change 09-Jul-2004
 C/Accession: I47131; S21461
 R.Gustafsson, K.; Germana, S.; Sundt, T.M.
 J. Immunol. 151, 1365-1370, 1993
 A>Title: Extensive allelic polymorphism in the CDR2-like region of the miniature swine CI
 A/Reference number: I47131; MUID:93329116; PMID:8335933
 A/Accession: I47131
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: mRNA
 A/Residues: 1-99 <GUT>
 A/Cross-references: UNIPROT:Q29027; EMBL:X65629; NID:g1928; PIDN:CAA46583.1; PID:g388232
 C:Superfamily: T-cell surface glycoprotein CD4; immunoglobulin homology
 C/Keywords: glycoprotein; T-cell
 F:3-81/Domain: immunoglobulin homology <IMW>

Query Match 29.7%; Score 305.5; DB 2; Length 99;
 Best Local Similarity 60.2%; Pred. No. 5e-18;
 Matches 59; Conservative 16; Mismatches 22; Indels 1; Gaps 1;

QY 32 KKGDTVELTCTASQKSIQPFHKNKSNQIKILNGGSPF-TKPSKLNDRADSRRLMDQ 90
 DB 1 KAGDLAEIPCHSSQKNNLPFMKNKSNQIKILGSGSFHTASVTELTSLDSKKMMWDHG 60
 QY 91 NPLILIKLIKIDSDTYICEVADQKEVQLLVGLTAN 128

Db 61 SFFLIINKLEVTDSGIYICEVEDKRIEVLVFLRTAS 98

RESULT 10

S21462
T-cell surface glycoprotein CD4 (allele 2) - pig (fragment)
C/Species: Sus scrofa domestica (domestic pig)
C/Date: 20-Feb-1995 #sequence_revision 19-Apr-1996 #text_change 09-Jul-2004
C/Accession: I47132, S21462
R/Submitter: K. J. Germana, S. Sundt, T. M.
J. Immunol. 151, 1365-1370, 1993
A/Title: Extensive allelic polymorphism in the CDR2-like region of the miniature swine C
A/Reference number: I47131, M0ID:93329116; PMID:8335933
A/Accession: I47132
A/Status: preliminary; translated from GB/EMBL/DBD
A/Molecule type: mRNA
A/Residues: 1-99 <G02>
A/Cross-references: UNIPROT:Q29028; EMBL:X65630; NID:91299; PIDN:CAA46584.1; PID:9388233
C/Superfamily: T-cell surface glycoprotein CD4; immunoglobulin homology
C/Keywords: glycoprotein; T-cell
F:3-81/Domain: immunoglobulin homology <IMM>

Query Match 27.3%; Score 280.5; DB 2; Length 99;
Best Local Similarity 56.1%; Pred. No. 5.3e-16;
Matches 55; Conservative 19; Mismatches 23; Indels 1; Gaps 1;

Qy 32 KGGDTVELCTASQKSIQFHWNKSNQIKILGNQSFLLTGP-SKANDRADSRSLMDQ 90
Db 1 KGGDLAEPCSHSQKSLPFSWNSDQIKILSRHMLMKAVALTELSSRLDSKKNMWDHG 60

Qy 91 NFPLIINKLEIETDPTICEVEDKRIEVLVFLRTAS 128
Db 61 SFFLIINKLEIETDPTICEVEDKRIEVLVFLRTAS 98

RESULT 11

JC2457
vascular cell adhesion protein - pig
C/Species: Sus scrofa domestica (domestic pig)
C/Date: 15-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 09-Jul-2004
C/Accession: JC2457
R/Submitter: Y.T.M.; Haekard, D.O.; Robinson, M.K.
Biochem. Biophys. Res. Commun. 201, 805-812, 1994
A/Title: Cloning and expression kinetics of porcine vascular cell adhesion molecule.
A/Reference number: JC2457; M0ID:94271236; PMID:7516159
A/Accession: JC2457
A/Molecule type: mRNA
A/Residues: 1-538 <TSA>
A/Cross-references: UNIPROT:Q28939; EMBL:U08351; NID:9474382; PIDN:AAA21542.1; PID:94743
C/Keywords: glycoprotein; transmembrane protein
F:497-517/Domain: transmembrane structure predicted <TM>
F:75,157,271,330,360/Binding site: carbohydrate (asn) (covalent) #status predicted

Query Match 13.7%; Score 140.5; DB 2; Length 538;
Best Local Similarity 23.9%; Pred. No. 0.00089;
Matches 44; Conservative 37; Mismatches 62; Indels 41; Gaps 6;

Qy 32 KGGDTVELCTASQKSIQFHWNKSNQIKILGNQSFLLTGP-SKANDRADSRSLMDQ 91
Db 235 QGGDSMMMTCTSEGLPAPQISW-----SKLDNGDQQL-----SGN 271

Qy 92 FPLIINKLEIETDPTICE-----VEDQKEVOLLV-----FGLTANSDFHLLQSGSLTL 141
Db 272 ATLTLLAMRVEDSGIYCEGVNPGVTRKEVELTVQVAPDPTTISVPSSTLESGSVN 331

Qy 142 TLESPPGSSPSV-----QCRSPRGKNIQGGKTLVSQLELDGSGTWCTVQ-----NOKV 193
Db 332 TCSSDGFPAKILMSKKLRGNLEPSEMTTLTLTKMEDSGIYCEGINQGINRKEV 391

Qy 194 EFKI 197
Db 392 ELII 395

RESULT 12

S36126
neural cell adhesion molecule L1 - rat
N/Alternate names: nerve growth factor-inducible large external glycoprotein, NILE glyco
C/Species: Rattus norvegicus (Norway rat)
C/Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Jul-2004
C/Accession: S36126; S17655; A60917; A30326
R/Mura, M.; Kobayashi, M.; Asou, H.; Uemura, K.
FEBS Lett. 289, 91-95, 1991

A/Title: Molecular cloning of cDNA encoding the rat neural cell adhesion molecule L1. Two
A/Reference number: S17655; M0ID:91372414; PMID:1894011

A/Accession: S36126

A/Status: preliminary
A/Molecule type: mRNA
A/Residues: 1-1259 <MIU>

A/Cross-references: UNIPROT:Q05695; EMBL:X59149

A/Status: preliminary
A/Molecule type: mRNA

A/Residues: 11178, 1183-1259 <MI2>
A/Cross-references: EMBL:X59149; NID:956740; PIDN:CAA1860.1; PID:956741

R/Prince, J.T.; Milona, N.; Stallcup, W.B.
J. Neurosci. 9, 1825-1834, 1989

A/Title: Characterization of a partial cDNA clone for the NILE glycoprotein and identifi
A/Reference number: A60917; M0ID:89257627; PMID:2723751

A/Accession: A60917

A/Status: not compared with conceptual translation
A/Molecule type: mRNA
A/Residues: 1159-1199, 'G', 1201-1235, 'K', 1237 <PRI>

A/Note: this paper appeared earlier, with printing errors, as reference A30326
R/Prince, J.T.; Milona, N.; Stallcup, W.B.
J. Neurosci. 9, 876-883, 1989

A/Title: Characterization of a partial cDNA clone for the NILE glycoprotein and identifi
A/Reference number: A30326; M0ID:89177485; PMID:246566

A/Contents: annotation
A/Note: this paper was reprinted as reference A60917 to correct the omission of several
C/Comment: This sequence of this surface-accessible glycoprotein differs at only two pos
accessible only after treatment of cells with detergent and is assumed to be cytoplasmic
C/Superfamily: neural cell adhesion molecule L1; fibronectin type III repeat homology; in
C/Keywords: cell adhesion; duplication; glycoprotein; membrane protein
F:531-592/Domain: immunoglobulin homology <IMM>

Query Match 12.3%; Score 127; DB 2; Length 1259;
Best Local Similarity 25.7%; Pred. No. 0.03; 79; Indels 48; Gaps 8;
Matches 53; Conservative 26; Mismatches 79; Indels 48; Gaps 8;

Qy 10 LLLVQLALLPATOQNKVLLGKGGDTVELCTASQKSIQ-FHWNKSNQIKILGNQGS 67
Db 507 ILANLQVKAQTQTQPRSTIEKRGARVFTQASFPDLQASITWRGDR----- 557

Qy 68 FLTGPSSKANDRADSRSLMDQNFPLIINKLEIETDPTICE-----EVEDQKEVOLLV 123
Db 558 -----DLQERDSDKYFIDQ--LVIKSLDYSQCGYSCVASTELDEVERAQLLV 608

Qy 124 GLTN-----SPTHLQSGSLTLTLESPPGSSPSVQCRSP-----RGKNIQGGKTL 169
Db 609 GSPGPVPHLELSRHLKQSGVHLN-----SPADHNSPIEKYIDFEDEKMAPEK 662

Qy 170 SVSQLELDGSGTWCTVQLONOKVEF 195
Db 663 SLGKV-----PQNTSTTLKSLPVVH 684

RESULT 13

JS0675
vascular cell adhesion molecule-1 precursor - rat
C/Species: Rattus norvegicus (Norway rat)
C/Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 09-Jul-2004
C/Accession: JS0675; S19872; S23136
R/Hesslein, C.; Moy, P.; Tizard, R.; Chisholm, P.; Williams, C.; Wyek, M.; Burki, L.; Mi
Biochem. Biophys. Res. Commun. 183, 163-169, 1992
A/Title: Cloning of murine and rat vascular cell adhesion molecule-1.

A:Reference number: J50674; MUID:92181437; PMID:1371918
 A:Accession: J50675
 A:Status: nucleic acid sequence not shown
 A:Molecule type: mRNA
 A:Residues: 1-739 <HES>
 A:Cross-references: UNIPROT:P29534; GB:M84488; NID:9207642; PIDN:AAA42332.1; PID:9207643
 R:Williams, A.; Atkins, R.; Fries, J.; Glimbrene, M.A.; Cybulsky, M.I.; Collins, T.
 Submitted to the EMBL Data Library, February 1992
 A:Description: Nucleotide sequence of rat vascular cell adhesion molecule-1.
 A:Reference number: S19872
 A:Accession: S19872
 A:Molecule type: mRNA
 A:Residues: 1-2, 'G', '4-121, 'HU', '124-165, 'N', '167-738, 'G' <ML>
 A:Cross-references: EMBL:X63722; NID:957471; PIDN:CAA5254.1; PID:957472
 R:Williams, A.J.; Atkins, R.C.; Fries, J.W.U.; Glimbrene Jr., M.A.; Cybulsky, M.I.; Collins, T.
 Biochem. Biophys. Acta 1131, 214-216, 1992
 A:Title: Nucleotide sequence of rat vascular cell adhesion molecule-1 cDNA.
 A:Reference number: S23136; MUID:92305064; PMID:1377031
 A:Accession: S23136
 A:Status: preliminary
 A:Molecule type: mRNA
 A:Residues: 1-2, 'G', '4-165, 'N', '167-738, 'G' <MI2>
 C:Comment: This protein interacts with the beta-1 integrin very late antigen 4 on leukoc
 C:Genetics:
 A:Gene: VCAM-1
 C:Keywords: cell adhesion; transmembrane protein
 F:1-24/Domain: signal sequence #status predicted <SIG>
 F:25-739/Product: vascular cell adhesion molecule 1 #status predicted <VAS>
 F:239-293/Domain: immunoglobulin homology <IMM1>
 F:328-385/Domain: immunoglobulin homology <IMM2>
 F:526-581/Domain: immunoglobulin homology <IMM3>
 F:676-696/Domain: transmembrane #status predicted <TRA>
 F:697-715/Domain: intracellular #status predicted <INT>

Query Match 12.1%; Score 124; DB 2; Length 739;

Best Local Similarity 23.4%; Pred. No. 0.028; Matches 43; Conservative 30; Mismatches 71; Indels 40; Gaps 5;

QY 33 KGDVETLCTASQKSIQFMKNSNQIKLGNQSFLLTKPSKLNDRASRRSLMDQNF 92
 DB 238 EGAAMTMTCASEGLPAEIFWMSK-----LDNGVLQL-----SGNA 274
 QY 93 PLIKLIKIEDSDTYTIE---VEDQKEVQLV-----FGILNSDTHLQSGSLTLT 142
 DB 275 TLTLIARMEBSGIIYVCEGVLVGRDKTEVELLYQEKPFVTVDISPGSQVAQVEDSVVLT 334
 QY 143 LESPPSSPSVQCSPPGKNIOG-----GKTLVSQLELDSDGVTCTVYLQNKQKVEF 195
 DB 335 CAAGCCSPSPSWRTQIDSPINGEVNRDEGATSTLTLPVGVEDHSYLCTVTCQRRKLEK 394
 QY 196 KIDI 199
 DB 395 TIQV 398

RESULT 14

S05479
 A:Title: Neural cell adhesion molecule 1 precursor - mouse
 C:Species: Mus musculus (house mouse)
 C:Date: 10-Sep-1999 #sequence revision 10-Sep-1999 #text_change 09-Jul-2004
 C:Accession: S05479; B60850; S22167
 R:Moos, M.; Tacke, R.; Schermer, H.; Teplow, D.; Frueh, K.; Schachner, M.
 Nature 334, 701-703, 1988
 A:Title: Neural adhesion molecule 1 as a member of the immunoglobulin superfamily with
 A:Reference number: S05479; MUID:88318924; PMID:3412448
 A:Accession: S05479
 A:Molecule type: mRNA
 A:Residues: 1-1260 <MO>
 A:Cross-references: UNIPROT:P11627; EMBL:X12875; NID:953336; PIDN:CAA31368.1; PID:953337
 A:Note: The authors translated the codon CCT for residue 166 as Leu, ACT for residue 396
 A:Note: part of this sequence, including the amino end of the mature protein, was confir
 R:Rathjen, F.G.; Wolff, J.M.; Frank, R.; Bonhoeffer, F.; Rutishauser, U.
 J. Cell Biol. 104, 343-353, 1987

A:Title: Membrane glycoproteins involved in neurite fasciculation.

A:Reference number: A60850; MUID:87109457; PMID:3805123
 A:Accession: B60850
 A:Molecule type: protein
 A:Residues: 20-28, 'XX', '31-36 <RAT>
 R:Kohl, A.; Glese, K.P.; Mohajeri, M.H.; Montag, D.; Moos, M.; Schachner, M.
 Submitted to the EMBL Data Library, December 1991
 A:Description: Analysis of promoter activity and 5' genomic structure of the neural cell
 A:Reference number: S22167
 A:Accession: S22167
 A:Molecule type: DNA
 A:Residues: 1-165, 'L', '167-189, 'E', '191-281, 'S', '283-395, 'S', '397-514, 'A', 'PEKNPVDV', '524, 'GECHET
 A:Cross-references: EMBL:X63511
 C:Genetics:
 A:Insertions: 26/1; 31/1; 66/2; 133/1; 174/1; 231/1; 268/2; 330/1; 374/1; 422/1; 459/2
 A:Note: The list of insertions may be incomplete
 C:Superfamily: neural cell adhesion molecule 1; fibronectin type III repeat homology; in
 C:Keywords: alternative splicing; cell adhesion; duplication; glycoprotein; transmembrane
 F:1-19/Domain: signal sequence #status predicted <SIG>
 F:20-1260/Product: neural cell adhesion molecule #status experimental <MAT>
 F:256-313/Domain: immunoglobulin homology <IMM1>
 F:440-498/Domain: immunoglobulin homology <IMM2>
 F:531-592/Domain: immunoglobulin homology <IMM3>

Query Match 12.1%; Score 124; DB 1; Length 1260;

Best Local Similarity 25.2%; Pred. No. 0.053; Matches 52; Conservative 27; Mismatches 79; Indels 48; Gaps 8;

QY 10 LLVLQALLPATQGNKVLGKKDYTELTCTASQKSIQ--FMKNSNQIKLGNQGS 67
 DB 507 ILANIQVNAQTQITGSPSAIEKKGARVTFQASFDPSLQNSTWRDGR----- 557
 QY 68 FLTKPSKLNDRASRRSLMDQGNPPLIILIKLIKIEDSDTYIC---EVEDQKEVQLIVF 123
 DB 558 -----DLQKGDDBKTFIEDGK--LVIGSDYSDQGNVCVASTEDDEVSSRAQLLVV 608
 QY 124 GLTAN-----SDTHLQSGSLTLTLBSPSSPSVQCRSP-----RGNNIGGKTL 169
 DB 609 GSPGPVPHLELSDRHLLKKSQVHLISW-----SPAEDHNSPIEKYDIEFEDKEMAPKKVF 662
 QY 170 SVSQLELDSDGVTCTVYLQNKQKVEF 195
 DB 663 SLQKV---PQNOTSTTLKLSPYVHY 684

RESULT 15

JC4776
 A:Title: limbic-system-associated membrane protein precursor - human
 C:Species: Homo sapiens (man)
 C:Date: 10-May-1996 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
 C:Accession: JC4776
 R:Pimenta, A.F.; Fischer, I.; Levitt, P.
 Gene 170, 189-195, 1996
 A:Title: cDNA cloning and structural analysis of the human limbic-system-associated mem
 A:Reference number: JC4776; MUID:9625133; PMID:8666243
 A:Accession: JC4776
 A:Molecule type: mRNA
 A:Residues: 1-338 <PIM>
 A:Cross-references: UNIPROT:Q13449; GB:U41901; NID:91276698; PIDN:AAC50569.1; PID:912768;
 A:Experimental source: brain
 C:Comment: This is a neuronal surface glycoprotein distributed in cortical and subcortice
 C:Genetics:
 A:Gene: lamp
 C:Superfamily: carcinoembryonic antigen; carcinoembryonic antigen precursor amino-termi
 C:Keywords: brain; glycoprotein; membrane protein; phosphoprotein
 F:1-7/Domain: signal sequence #status predicted <SIG>
 F:33-338/Region: hydrophobic
 F:40-66,136,148,219,287,300,315/Binding site: carbohydrate (Asn) (covalent) #status predi
 F:42,115,142,164,171,220,231/Binding site: phosphate (Thr) (covalent) #status predicted
 F:95,192,204,236,310/Binding site: phosphate (Ser) (covalent) #status predicted
 Query Match 11.5%; Score 118.5; DB 2; Length 338;
 Best Local Similarity 23.6%; Pred. No. 0.031;

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